Finding Of No Significant Impact:
Science-Based Management Selected in Lieu of Proposal to Convert 12 Ranching Wells to Wildlife Guzzlers, Mojave National Preserve

Purpose and Need

California Department of Fish and Game (CDFG) proposed to convert 12 abandoned ranching water developments in Mojave National Preserve into wildlife guzzlers. The wells were originally installed and operated for cattle ranching. The 12 wells identified for this project were abandoned when the ranchers ceased grazing operations in Mojave National Preserve and removed their personal property over the last five years. CDFG has proposed to redesign the water developments into wildlife guzzlers. In addition, the National Park Service has identified a need for more information about wildlife populations and their use of surface waters in Mojave National Preserve.

Alternatives Evaluated

Three alternatives were examined in the Environmental Assessment (EA):

A. No Action – continue current management
B. Convert 12 abandoned water wells to wildlife guzzlers (CDFG proposal)
C. Science based management approach, same as alternative A but with long-term scientific studies

Alternative A is the No Action, or the continuation of status quo. Wildlife would continue to utilize the more than 300 natural and artificial waters that currently exist in the Preserve. No abandoned wells would be converted to wildlife guzzlers and no research specific to wildlife guzzlers is proposed.

Alternative B is the Proposed Action. Under this alternative, CDFG would reconfigure twelve ranching wells and convert them into wildlife watering facilities. Much information regarding the potential for this alternative is not known, including the status of each individual site location and the exact structures that would need to be in place to supply water. With intense public interest divided over this alternative and the current lack of scientifically valid wildlife population data, few conclusions can be drawn regarding the irreversible impacts or benefits that this alternative would have. Alternative B runs contrary to the General Management Plan (GMP). It is also inconsistent with National Park Service (NPS) Management Policies which support restoration of natural systems including the removal of non-historic structures and facilities (Section 4.1.5, NPS Management Policies, 2001).

Alternative C is similar to Alternative A, but with an emphasis on increasing our knowledge of springs and wildlife populations through long-term scientific studies. These studies would focus on the function and use of self-sustaining surface water as well as the use and need of ranching water developments by wildlife.

Other alternatives were also considered but eliminated for various reasons. The EA contains further discussion of those alternatives.

Alternative Selected

Alternative C, the science-based management approach, is the alternative selected. Based on public concern expressed in comments during the public scoping and public comment periods in 2005 and early 2006, and due to the current lack of adequate scientific information to support the proposed action, the NPS will expand the research program proposed in Alternative C from strictly passive, or "natural", water sources to include actively managed, or "developed", sources, as well. Research on springs and seeps includes but is not limited to:

- Spring and seep reliability during a multi-year drought and geographic distribution of reliable natural water sources during an extended dry spell; and
- Establishing the level of human intervention necessary to maintain surface flow of water at "natural" springs and seeps.

Regarding artificial water developments, the NPS will reconfigure a diversity of abandoned ranching wells as wildlife water facilities to address a broad range of research questions. This research will involve at least four ranching wells to be reactivated. The NPS will immediately seek input from the research community, state fish and game agencies, and other stakeholders on research design and methods. Initial research topics suggested by Rosenstock et al. (1999) include:

- Effects of water developments on populations and habitat use of game and non-game species;
- Effects of water developments on mammalian predator populations;
- Water quality at actively managed versus passive wildlife water sources;
- Secondary effects of water developments on other biota (e.g., plant communities); and
- The role of water developments in transmission of diseases.

The NPS will simultaneously conduct population census studies on the mule deer in Mojave to determine their distribution, abundance, overall health and water needs. The NPS will seek cooperative participation from CDFG and other interested groups in developing the parameters of these research efforts and review of the resultant data. The conclusions drawn from these efforts will contribute to future management decisions regarding artificial water sources in Mojave National Preserve.

Alternative A and C were both found to be consistent with Mojave National Preserve's GMP. The GMP addresses ranching developments as follows:

> If and when a grazing permit is purchased by a third party and donated to the NPS for retirement, most ranching developments will be removed following cultural resource inventory and analysis. Some of these developments may be retained as important features of the ranching history of the area. Others may be retained if necessary for other park resources management projects (i.e. burro removal or a park horse operation), park housing or administrative use. (p. 70, GMP, April 2002)

These alternatives also best align with Mojave National Preserve's existing resource management programs, including but not limited to removal of non-native and/or invasive species (burros, invasive plants), resource monitoring (springs, range conditions, desert tortoise, other wildlife), infrastructure

maintenance and repair (small game guzzlers, big game guzzlers, springs), passive restoration (retired grazing allotments), and active restoration (abandoned mine lands).

Both Alternatives A and C meet the criteria for the Environmentally Preferable Alternative. Environmentally preferable is defined as "the alternative that will promote the national environmental policy as expressed in the National Environmental Policy Act's Section 101. Ordinarily, this means the alternative that causes the least damage to the biological and physical environment. It also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources" (Forty Most Asked Questions Concerning Council on Environmental Quality's National Environmental Policy Act Regulations, 1981)." Alternative A affords the maximum protection to the groundwater from possible contamination and is in accordance with the State of California's regulations on well closure procedures. Alternative C would also have to meet this same standard wherever abandoned wells are proposed to be utilized. Neither alternative will appreciably change the historic landscape.

Per NPS and Mojave National Preserve policy, separate compliance with the National Environmental Policy Act will be completed for each scientific research and collecting permit issued. Minimum requirements analysis will be included in the review process for research involving the use of mechanized or motorized equipment within wilderness.

Mitigation Discussion

Adverse impacts of research proposed under the Selected Alternative will be avoided or mitigated in the planning and review stages of each research proposal. Mitigation actions and constraints typical of research projects conducted in the Preserve include timing constraints to avoid desert tortoise active season, avoidance of ground disturbance, and avoidance of motorized or mechanized equipment in wilderness, to name some examples. Specific avoidance and mitigative actions will be determined on a case-by-case basis.

Discussion of Significance Criteria

The Selected Alternative, Science-Based Management, was found to have minimal to no impacts on soils, water resources, vegetation, threatened and endangered species, prehistoric, historic, and cultural resources, visitor experience, development and public health and safety, park operations and wilderness. Research can be designed to avoid significant impacts to these resources. The NPS's legal obligations to protect desert tortoise and to comply with State well water standards will be incorporated into research proposals that are approved for Mojave National Preserve. Reactivation of selected abandoned wells for scientific study will result in temporary minor disturbances of the surrounding areas which were previously disturbed from livestock operations.

The Selected Alternative does not alter the risks to public health and safety in Mojave National Preserve. The ranching wells do not meet California water quality standards. Abandoned ranching wells that are reopened under the Selected Alternative will need to comply with these standards to assure public health and safety.

All of the ranching infrastructure (wells, corrals, tanks, troughs, water lines, fence lines, etc.) at outlying watering locations within the Kessler Springs and Lanfair grazing allotments were inventoried and

evaluated for their historic significance by a ranching historian (Livingston 2001). This information was used to develop a National Register of Historic Places (NRHP) nomination for a Rock Springs Land & Cattle Company Historic District. Ten of the twelve wells designated for guzzler retrofits under Alternative B were included in that inventory. Most of these wells and associated corrals date to the period during which Claude Halsell operated the OX Ranch (1930-1948, although two of them (Vontrigger and Lanfair) were likely installed by the Rock Springs Land & Cattle Co. between 1894 and 1927 and the Payne Well was installed by Ed Eldridge sometime between about 1955 and 1986. The well still in operation at Government Holes was likely first put into use sometime during the 1860s but was subsequently improved by Halsell. The well at the Hollimon homestead in Gold Valley was never part of either of the retired grazing allotments and likely fell into disuse sometime around Bob Hollimon's death in 1953. Finally, the Granite well is within the grazing allotment still operated by the Blair family and provides water to 7IL Ranch cattle at present.

The Selected Alternative addresses concerns expressed by the public during the scoping and public comment periods. Many of the comments themselves were conflicting; it is hoped that the amended Science-Based Management Alternative will address concerns on both sides of the debate. The Selected Alternative presents the greatest consistency with the GMP and NPS Management Policies while minimizing the potential for adverse impacts.

The Selected Alternative will increase knowledge about wildlife use of passive and actively management water sources in Mojave National Preserve, wildlife populations – especially mule deer – and ecosystem dynamics. Long-term impacts to range conditions and springs use are being studied. The level of associated unique or unknown risks is minimal.

The Selected Alternative presents a low potential for significant adverse impacts. Scientific research on water sources in the Preserve will have temporary impacts and will be designed to avoid or mitigate significant adverse impacts, no new precedent will be established.

Under the Selected Alternative, a small proportion of the abandoned ranching wells will be activated for research purposes. Wildlife continues to utilize springs, seeps, and existing guzzlers, and cattle operations will continue on active grazing allotments. Hunting remains an allowable recreational activity, as specified in the California Desert Protection Act of 1994. California Department of Fish & Game continues to maintain and repair both big game guzzlers and small game guzzlers in Mojave National Preserve. Activation of some ranching wells for research does not have individually or cumulatively significant adverse impacts.

The Selected Alternative will not adversely affect historic properties eligible for the National Register of Historic Places. Under the Science-Based Management Alternative, the NRHP nomination of the Rock Springs Land & Cattle Co. Historic District will go forward and the historic properties at the well sites that were part of the former Kessler Springs and Lanfair grazing allotments will be preserved following guidelines developed as a part of a condition assessment and treatment plan written in 2005 (Livingston 2005).

No other significant scientific, archaeological, or cultural resources will be adversely affected by the select No Action Alternative.

By incorporating desert tortoise protective measures into all approved research designs, the Selected Alternative will not change conditions for the desert tortoise or its habitat. Because of its isolation at Zzyzx, the Mohave tui chub will not be affected by No Action either. Continuation of the current conditions will not adversely impact either species.

The NPS is in compliance with all applicable Federal, State, and local laws. The NPS is currently assessing all wells in Mojave National Preserve. In accordance with California State Well Water Standards, wells in active administrative use are being upgraded and those that have fallen into disuse are being sealed and abandoned. The NPS will need to improve, according to code, the wells selected for scientific study. This is an ongoing project to improve public health and safety in Mojave National Preserve.

Impairment

The National Park Service must consider the potential impacts of each alternative and the implications for impairment to the resources of Mojave National Preserve. The Organic Act of 1916, which established the National Park Service, and its amendments state:

> [The National Park Service] shall promote and regulate the use of the Federal areas known as national parks, monuments, and reservations hereinafter specified... by such means and measures as conform to the fundamental purpose of the said parks, monuments, and reservations, which purpose is to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations. (16 USC 1)

NPS managers must always seek ways to avoid or minimize to the greatest degree possible adverse impacts on park resources and values. Through this law and the General Authorities Act, NPS managers have the discretion to allow impacts to park resources and values when necessary and appropriate to fulfill the purposes of a park, as long as the impact does not constitute impairment of the affected resources and values. Although Congress has given the NPS management discretion to allow certain impacts within parks, that discretion is limited by the statutory requirement that the NPS must leave park resources and values unimpaired, unless a particular law directly and specifically provides otherwise.

The prohibited impairment is an impact that, in the professional judgment of the responsible NPS manager, would harm the integrity of park resources or values, including opportunities that otherwise would be present for the enjoyment of those resources or values. An impact to any park resource or value may constitute impairment. However, an impact would more likely constitute impairment to the extent it affects a resource or value whose conservation is:

- Necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park;
- Key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park; or
- Identified as a goal in the park's GMP or other relevant NPS planning documents.

Impairment may not result from NPS activities in managing the resources, visitor activities, or activities undertaken by concessionaires, contractors, and others operating in the park.

The impacts identified as resulting from the Selected Alternative are non-existent or not significant and are consistent with the GMP. Existing surface waters will continue to be available for wildlife use. Associated infrastructure will continue to be maintained and repaired by the NPS (springs) and CDFG (guzzlers). The NPS will continue to monitor springs and their use by wildlife, range conditions, and desert tortoise. The abandoned ranching wells that are chosen for scientific study will be temporarily reactivated and will not have long-lasting or irreversible effects. Efforts to protect/preserve the historic landscape, including nominations to the National Register of Historic Places, will continue.

Impacts to wilderness will be insignificant. Research designs will incorporate measures to protect wilderness values where needed, and the park's determination of the "minimum tool" necessary to accomplish a project will be included in the environmental compliance prepared for public review.

None of these or any other impacts identified in the EA will result in significant or irreparable damage to the resources of Mojave National Preserve. It is, therefore, concluded that impairment will not result from implementation of the Selected Alternative.

Public Review and Consultations

The EA proposal to Convert 12 Ranching Wells into Wildlife Guzzlers, Mojave National Preserve, California, was released for public review November 22, 2005. The EA was on formal public review for 70 days, until January 31, 2006. No public meetings or hearings were conducted. EA documents were mailed to 37 groups. Nine requests for EAs were received during the public review period. A total of 2,175 press releases were mailed to libraries, newspapers, and other interested parties. Five native American tribes received press releases.

A total of 607 letters or emails were received during the public comment period[1]. The majority (581) supported Alternative B or a combination of Alternatives B and C. Responses revealed some level of confusion about the differences between ranching wells and wildlife watering facilities. There also appeared to be a lack of understanding among respondents regarding the amount of available surface water sources in Mojave National Preserve. While many comments asserted a decline in wildlife populations since grazing permits were first retired in 2000, no information was provided to substantiate these claims. The balance of the comments supported either Alternative A (10), Alternative C (12), or a combination of the two (included in prior counts). Four comments did not support any particular alternative. There was some confusion regarding the types of research to be done under Alternative C. It was also concluded that Alternative C, Monitoring the Natural Springs and Wildlife Populations of Mojave National Preserve to Determine Existence and Extent of Need for Artificial Water, would not actually answer the question of need for the ranching wells to be reactivated and/or converted into wildlife watering facilities. This is one reason the alternative was modified to include artificial waters to be studied.

[1] The National Park Service received over 2000 comment letters or emails during the public scoping period, of which approximately 200 supported the CDFG proposal and about 1700 opposed it.

The Selected Alternative was found to meet the conditions for a programmatic exclusion under the 1995 Service-wide Programmatic Agreement for Section 106 Compliance, Exclusion IV.B.1; further consultation under 36 CFR is not needed.

Conclusion

Based on the analysis in the EA, the management direction provided in the GMP, capability of mitigation measures to reduce or eliminate potential adverse impacts, and with due consideration for public comment, the NPS has determined that the Selected Alternative does not constitute a major federal action significantly affecting the quality of the human environment. Therefore, in accordance with the National Environmental Policy Act of 1969 and the regulations of the Council of Environmental Quality (40 CFR 1500-1508) an environmental impact statement will not be prepared.

The NPS, in cooperation with CDFG and other researchers, will proceed immediately to initiate research on the need and location of additional artificial water sources in the Mojave National Preserve, beyond the over 150 that currently exist and are operational. The NPS will also seek to conduct mule deer census, in cooperation with CDFG, to gather scientifically valid population data to support our management decisions. Our efforts will help us understand the appropriate placement of artificial water sources and any other wildlife population needs that currently exist.

Recommended:

Dennis Schramm
Superintendent, Mojave National Preserve

4/19/06
Date

Approved:

Jonathan B. Jarvis
Regional Director, Pacific West Region

Date